

**PREDICTORS OF DEPRESSION
IN MIDDLE AGED WOMEN**

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ABSTRACT

This study aimed to develop a predictive model of depression in a New Zealand urban community sample of 180 women aged 40 to 60, who were married with children. A conceptual model was developed which distinguished situational, cognitive/attitudinal and satisfaction variables. Within these groups the specific variables hypothesised to predict depression (as measured by items from the Cornell Index) included: a high number of life changes, menopause, a large number of children and a large number of children living at home, low occupational status, participation in unpaid work, external locus of control, conservative attitudes towards women, poor quality of relationships and low work satisfaction. Results indicated that external locus of control was the only variable which predicted depression in this sample of middle aged women. Possible explanations for the nonsignificance of the other variables and the practical and theoretical implications have been discussed. It has been suggested that cognitive factors may play an important role in future research on women's depression.

INTRODUCTION

In terms of mental disorder in general, women present with no more than men. However, when specific disorders are examined, women show a greater lifetime prevalence of depression (Amenson & Lewinsohn, 1981) and mixed anxiety/depression disorders (Jenkins & Clare, 1985). Specifically, women are twice as likely as men to suffer from depression (Regier, 1988; Rothblum, 1983; Weissman & Klerman, 1979). There is a large body of theory attempting to explain why women are considerably more likely to both rate themselves depressed on subjective measures and to be diagnosed as depressed by clinicians. One theory, coined the Gender Role Hypothesis, proposes that women are brought up as children to have traits which are very similar to the traits seen in depressed people (for example, dependency, helplessness, lack of assertiveness). The Gender Role Hypothesis has been supported by empirical research correlating scores on depression inventories with scores on sex role inventories (see Landrine, 1988). Researchers have found that those who score as stereotypically feminine on sex role inventories, also tend to be depressed, whereas high masculinity scores have a strong negative correlation with depression.

Another theory is that women have cognitive styles - ways of thinking about the world and themselves - which are correlated with depression. According to Barnett and Baruch (1986), women are more likely than men to demonstrate a 'depressive' cognitive attributional style. That is, a style in which the depressed person accepts the blame for negative events while refusing to take the credit for positive outcomes (Abramson, Seligman & Teasdale, 1978). If one accepts the Gender Role Hypothesis of female depression - that women are socialised into acquiring *behaviours* associated with depression - then it is feasible that women also acquire *cognitions* which predispose them to

depression. These 'depressive' cognitive styles may develop before, concurrent with, or after, women develop the gender socialised behaviors of helplessness and dependency.

Another variation on the theories which point to women's socialisation as the cause is that of Brown and Harris (1978). They propose a female vulnerability model, which rests on the assumption that women hold stressful adult sex roles (for example, being a fulltime mother) and when these are combined with a stressful life event, depression results. There is conflicting evidence about the contribution of marriage to women's higher incidence of depression. Some research shows married women are psychologically more healthy than nonmarried women. However, most studies demonstrate that married women constitute the highest proportion of all depressed women (Berah, 1983; Briscoe, 1982; Gove, 1972; Hafner, 1989; Parker, 1979). Marriage appears to be more psychologically stressful for a woman because of her lesser power, her unrealistic expectations about her husband and most importantly, the strain of responsibility for housework, child care and fulltime work (Kaplan & Sedney, 1980). The quality of the relationship with her husband seems to be a crucial variable in protecting women against depression (Tennant, Bebbington & Hurry, 1982).

Until recently, the variables considered important in predicting women's psychological maladjustment have been limited to children, marriage and reproduction issues (for example, menstruation, childbirth and menopause). Little consideration has been given to a woman's occupation, nor to her satisfaction with her work. Although the evidence is conflicting, it appears that participating in paid work reduces a woman's vulnerability to depression. For example, women in paid work are half as likely to report depression as nonemployed women (Brown & Harris, 1978).

Attempts to establish a biological explanation for women's higher rates of depression have not been successful to date (Jenkins & Clare, 1985). They note

that no research has correlated levels of gonadal hormones with affective disorders. Furthermore, neither menstruation, menopause nor the postpartum period been shown to play a conclusive causal role.

The bulk of research on women's depression has been directed at younger women in their 20s and 30s, especially those with young children. It appears to have addressed only narrow aspects of the experience of women in midlife. While researchers have explored the relationship of depression to menopause and grown children leaving home, they have excluded other factors. Furthermore, such research appears to have been carried out primarily by medical doctors or sociologists; psychologists and in particular clinical psychologists, appear to have made relatively little contribution to this area.

This study aimed to select variables which both reflected the experience of married, middle aged women and which were most likely to predict depression within this population.

Predictive model of depression

A model was developed which incorporated into three groups the potential predictors of depression in middle aged women. These three groups were defined as 'situational variables', 'cognitive/attitudinal' variables and 'satisfaction' variables. The 'situational' variables were defined as external or environmental characteristics of the subjects (for example, life change and paid/unpaid work status). Cognitive/attitudinal' variables were defined as personal attitudes and cognitive schemas; these included locus of control and conservative/liberal attitudes to women's roles. The 'satisfaction' variables included both the quality of relationships with significant people and satisfaction with work.

The situational and cognitive variables were judged to be causally prior to the onset of depression. However, the causal role of the satisfaction variables seemed less clear. Although dissatisfaction with various aspects of one's

relationships and one's work may precipitate depression, it is more likely that dissatisfaction occurs concurrent with, or results from, depression. The predictive model of depression will be discussed in more detail later. The following is a critical review of the literature on specific variables which make up the three groups (situational, attitudinal/cognitive and satisfaction) as these relate to depression in all women. Naturally, these variables also relate to depression in middle aged women. However, there are some additional variables which contribute to depression in middle aged women specifically (for example, menopause and children leaving home). A discussion of these variables specific to middle aged women will follow that of women generally.

Cognitive/attitudinal variables

Cognitive Style

Rotter's (1966) theory of locus of control explores how people explain the cause of their success or failure. People with an internal locus of control perceive contingencies between their own behaviour and outcomes, whereas those with an external locus of control perceive that outcomes are related to luck or chance (see Strickland, 1989 for a review).

Seligman's (1972) popular theory of learned helplessness states that when a person believes that outcomes are not contingent on her own behaviour, she will give up trying to impact on the environment and develop helplessness and depression. The learned helplessness model of depression was restructured by Abramson et al. (1978) to include attributional concepts.

"According to Abramson et al., for depression to occur individuals must not only experience uncontrollable outcomes, they must develop expectations that future outcomes will also be uncontrollable." (Eiser, 1986, p. 205).

Such expectations depend on the attributions made about outcomes. Abramson et al. have shown that depressed and nondepressed people differ in

their attributional style. Depression is associated with a tendency to attribute negative events to internal, stable, global causes, while positive events are attributed to external, unstable, specific causes. Having an external locus of control is assumed to engender feelings of powerlessness which in turn is believed to prevent effective coping with stressful events. People who believe they have little influence over events in their lives tend to be more depressed, whereas those who believe they can make plans and effect outcomes tend to be less depressed (Wheaton, 1980). Those with an external locus of control have a more passive approach, lowered motivation and less persistence in solving problems (Mirowsky & Ross, 1986).

There is a suggestion that women are more likely to have an external locus of control and thus perceive what happens to them as independent of their own behaviour (Baruch & Barnett, 1986). This suggestion seems reasonable given that in reality women probably do have less control than men over many life events. Women's power is diminished because of limited access to concrete resources, often leaving women with only "indirect, personal and helpless modes of influence." (Johnson, 1976, in Kaplan & Sedney, 1980, p. 337). A more detailed analysis of women's limited power is provided by Lipman-Blumen (1984).

Attitudes Towards Women

Spence and Helmreich (1978), who developed the Attitudes Towards Women Scale (AWS), carried out much of the early work on liberal versus conservative sex role attitudes. They found that higher socioeconomic status and lack of religious preference was associated with more liberal attitudes about women's roles and behaviour. In addition, those who had more traditional attitudes on the AWS also perceived larger differences between the sexes. This detailed study of Spence and Helmreich was carried out on student populations, making generalisations to older women more difficult. However, they did find that mothers of college students held more traditional attitudes than their

children. Ellis and Bentler (1973) added some validity to the AWS by establishing a correlation between conservative attitudes towards women and conservative political views.

Krausz (1986) in a study of women aged 20 -40 found a strong correlation between engaging in outside employment and holding liberal sex role attitudes. The non-career oriented women engaged in paid work also held stronger liberal attitudes than the homemakers. Giving further validity to this finding was a study by Brewer, Cunningham and Owen (1982) showing that fulltime homemakers had more traditional feminine identities.

There is a suggestion that women who hold traditional attitudes about their roles may be at risk for psychological maladjustment. Gump (1972) found that a high score on Barron's (1956) Ego Strength Scale was related to holding liberal attitudes about women's roles. This scale was based on the Minnesota Multiphasic Personality Inventory (MMPI) items which tapped into coping skills, sense of reality and physical functioning. The students who believed women could achieve satisfaction in both career and family life, showed better ego strength. Conversely, those who viewed women's roles as more limited and traditional showed reduced ego strength. Gump concluded that, for women, "purposiveness, resourcefulness and self-direction may be inconsistent with adoption of a role limited to the traditional...goals." (p. 90).

Although Gump used traits associated with 'ego strength', rather than measures of depression, there are parallels between absence of depression and the traits supposedly reflecting ego strength (self-direction, purposiveness, coping and good physical functioning). Both positive ego strength and absence of depression are correlated with internal locus of control (Gump, 1972; Mirowsky & Ross, 1986), adding support to the idea that the two measures of maladjustment are associated. Thus one would expect that because traditional attitudes towards women are correlated with low ego strength, they should also be correlated with depression.

It is purported that women's traditional role of wife and mother is less powerful than that of men's role of breadwinner (Lipman-Blumen, 1984). Thus, one would expect a woman in this role to express her powerlessness in learned helplessness and resulting depression.

Situational variables

Life Changes

There has been two decades of research showing consistent, but low, correlations between life changes and various types of psychological and physical disorder (Monroe, 1982; Rabkin & Struening, 1976; Schradle & Dougher, 1985). Specifically, life change is associated with psychiatric symptomatology (Dekker & Webb, 1974; Paykel et al., 1969), such as depression, anxiety and tension (Constantini, Brown, Davis & Iervolino, 1973; Vinokur & Selzer, 1975). Because the correlation is low, some researchers have suggested that mediating variables, such as social support, may serve as buffers against life changes (Dohrenwend & Dohrenwend, 1974; Dean & Lin, 1977). Further research has revealed that when there are a large number of life changes, social support seems to protect people from psychological maladjustment (Wilcox, 1979, in Schradle & Dougher, 1985).

Research has shown that people with masculine traits cope more effectively with the stress of life changes, than those with feminine traits (Radloff & Rae, 1979; Cox & Radloff, 1979 and Radloff & Monroe, 1978, both in Stoppard & Paisley, 1987). This is because feminine traits are allegedly associated with learned helplessness. However, Stoppard and Paisley (1987) found that androgynous traits rather than exclusively masculine ones were the best predictors of good mental health. This finding challenges the notion that feminine traits alone reduce tolerance to stress.

Brown and Harris (1978) propose a female vulnerability model, which assumes that women hold stressful adult roles and that when these are combined with a stressful life event, depression results. Two of the specific stressful adult roles the authors identified were caring for three or more children under the age of 14 and not being in paid employment. This suggests that life changes may be an important variable in predicting depression in women.

One issue in researching life changes is whether to measure only negative events or both negative and positive events. There is evidence that negative life events alone, rather than positive and negative together, are better predictors of depression (Brown, 1987; Brown & Harris, 1978; Paykel et al., 1969). However, a major conceptual problem in measuring only negative life events is the definition of 'negative' (Sarason, Johnston & Siegel, 1978). Many of the events which the researchers believe reflect a negative life change (for example, divorce), may in fact be positive for the subject; thus one may inadvertently be measuring positive events. The Social Readjustment Rating Questionnaire (Holmes and Rahe, 1967) avoids this pitfall by measuring life changes without defining them as negative or positive.

Satisfaction variables

Positive psychological adjustment is based on satisfaction with a number of different areas of one's life (Weaver, 1978). Two of the most important of these are personal relationships and work. It is widely believed that having social support protects people from emotional, psychiatric and physical disorders (see Reis, 1984, and Schradle & Dougher, 1985 for reviews). Social support is also believed to buffer people against the negative effects of stressful life events (Cassel, 1974). "The significant others help the individual mobilise his [or her] psychological resources and master his emotional burdens." (Caplan, 1974, p. 6,

in Schradle & Dougher, 1985). Caplan (1974) refers to the necessity of mutual obligation and reciprocity of needs as features of good social support.

For women who are married, the three most significant sources of social support are probably her husband, children and friends. One can speculate that dissatisfaction with these relationships may precipitate, co-occur with, or result from, depression. Research on the association between depression and women's satisfaction with relationships and with their work, will be discussed.

Marriage and relationship with husband

There is some evidence that married women report being happier and more satisfied than nonmarried women (Baruch, 1984; Surtees et al, 1983). However, the bulk of research suggests that married women are worse off than both their husbands and unmarried women (Gove, 1972). Married women are more likely than unmarried women to show psychological distress, depression, phobic reactions, passivity and anxiety (Berah, 1983; Briscoe, 1982; Kaplan & Sedney, 1980). More wives than husbands report marital dissatisfaction, negative feelings, consider separation or divorce, and regret their marriages (Kaplan & Sedney, 1980). Given the overwhelming evidence, one can only conclude that for women, something is rotten in the state of marriage.

This raises the obvious question: what is it about marriage that is so detrimental for women? Kaplan and Sedney (1980) provide a good summary of probably explanations. The additional power society bestows on husbands in marriage is one possibility. Society expects that a wife will reshape her personality and roles to fit the needs of her husband. Women are also socialised into having an idealised vision of a husband being someone who can meet her every need. The reality which confronts her, however, is that she must take care of an often needy husband. Perhaps a greater physical and psychological strain for married women is the almost exclusive responsibility for housework and child care. For most women now there is the additional workload of a fulltime job.

Thus, it may not be the quality of her relationship with her husband which causes the increased depression, but rather the strain of burdensome roles which society deems appropriate for a married women.

However, the quality of a woman's relationship seems to play a role in psychiatric disorder; she is protected from maladjustment if the relationship is good and put at risk if the relationship is poor. Brown (1984, in Baruch & Barnett, 1986) found that engaging in consistently negative interactions with her husband strongly predicted depression in a woman. Disturbed marital relationships are not only concomitant with depression, but they may also precede and follow depressive episodes (Barnett & Gotlib, 1988; Gotlib & Whiffen, 1989). In contrast to poor quality relationships, Tennant et al. (1982) found that wives who described their husbands as caring and supportive showed less psychiatric disorder than those married women without such a good quality relationship. Brown and Harris (1978) hypothesise that an intimate, confiding opposite-sex relationship helps prevent depression in women because their self-esteem and feelings of mastery are boosted. Bumagin (1982) suggests that a married woman may have a more extensive support system in the form of her husband and children, which is particularly important in times of crisis or stress. Good emotional support in times of difficulty would certainly seem important in preventing depression. It seems reasonable to assume that such support is most likely to occur in a relationship which is judged to be both close and satisfying to a woman. In conclusion, the quality of the relationship with the husband seems an important variable in predicting depression in middle aged women.

Children

Studies of community samples of parents have shown that responsibility for child care, especially of younger children, is associated with dissatisfaction and depression (Kaplan & Sedney, 1980). This suggests women are particularly

vulnerable to depression, as women still do most of the child care work in two parent families, despite supposed changes in sex roles. Research shows that a man does no more child care if his wife works outside the home, compared to a man whose wife is a homemaker (Pleck, in press, in Kaplan & Sedney). Moreover, many people ideally prefer that child care remains primarily the woman's responsibility (Kellerman & Katz, 1978).

It is clear that mothering is a stressful role. Mothers are particularly at risk for developing depression if they have a low income and a number of young children (Belle, 1979, in Kaplan & Sedney). The role of full-time mother is believed to be so stressful because of the isolation from other adults and the constancy of the role. It seems that society also has unrealistically high expectations of mothers. Kaplan and Sedney (1980) believe that mothering is also stressful because women are socialised into dependency on others, when in fact they need independence and instrumental skills to function effectively as a parent.

It seems intuitively reasonable that dissatisfaction with the relationship with one's children would correlate with depression. Baruch and Barnett (1986) state the case more succinctly when they say that "children can make one's life miserable as well as wonderful." (Baruch & Barnett, 1986, p. 579). It has been suggested that dissatisfaction with being a mother cannot be easily compensated for by satisfaction with other roles (Spreitzer, Snyder & Larson, 1979).

There appears to be a lower overall rate of psychiatric disorder found in New Zealand mothers with young children when compared to women in methodologically similar studies overseas (Romans-Clarksons, Walton, Herbison & Mullen, in press). The authors explained this lower rate in terms of the more highly gender differentiated social roles of men and women in New Zealand culture compared to, for example, the British or American culture. The traditional New Zealand arena of female activity, the home and family, has been unfamiliar to men in the past. In spite of this unfamiliarity, or perhaps because of

it, the mothering role became highly valued in the male-oriented society (Olssen, 1980 and Dalziel, 1986, in Romans-Clarkson et al., in press). Gillespie (1980, in Romans-Clarkson) has concluded that motherhood is still highly valued because the proportion of married women in the paid workforce is lower in New Zealand than Great Britain; however, this conclusion is questionable. Given the evidence that New Zealand mothers show low levels of psychiatric symptoms, there is uncertainty about the role that satisfaction with mothering plays in predicting depression. A further consideration is that most research has been conducted on younger mothers and leaves unclear the situation among older mothers.

Relationship with friends

Friendships offers people protection from loneliness and distress (Weiss, 1982, p. 174). Loneliness is defined as an unpleasant feeling of discomfort when one perceives a deficiency in one's social relations (Gerson & Perlman, 1979, in Stone-Feinstein, 1987) and is highly correlated with depression (West, Kellner & Moore-West, 1986). Jones (1981) found that people who mixed with strangers and acquaintances rather than friends reported more loneliness. In a New Zealand study, Maxwell & Coebergh (1986) found that those who were less lonely spent more time with people they were emotionally close to, had more close friends, and were more satisfied with their relationships.

At all stages of adulthood, women are more involved with friendships than are men (Lowenthal, Thurnher & Chiriboga, 1975). It has been hypothesised that women seek and receive social support from a wide network of people, whereas men are socialised into receiving nurturance more exclusively from their mothers and then their female partners (Morgan, 1981, O'Neil, 1981, in McLennan & Omodei, 1988). Women are believed to have a greater capacity for intimacy and to bring this to their friendships with other women. Indeed, Bernard (1976) claims that many women suffer from 'relational deficit' because their intimacy needs are not fully met in their relationships with their husband. This is particularly relevant

particularly relevant in the New Zealand culture, where women's friendships are undervalued in comparison to males' "mates", and women are expected to leave behind their friendships upon entering a sexual relationship (Haines, 1987). Given the importance of friendship to women, a measure of this relationship quality would seem particularly important in predicting depression in women.

Work

Engaging in fulltime paid employment outside the home appears to have psychological advantages for married women, but there are also costs associated with it. Employed women are purported to be half as likely to get depressed as nonemployed women (Brown & Harris, 1978). One of the few studies on work and psychological maladjustment among middle aged mothers found that fulltime paid workers reported significantly fewer maladjustment symptoms than did fulltime homemakers (Powell, 1977). Married women in paid employment report levels of psychological symptoms similar to that of their employed husbands. However, women who are not employed outside the home report up to four times more psychiatric disorder than their husbands (Tennant et al., 1982).

One interesting finding is that of Rosenfield (1986) who showed that when the wife was employed, the typical sex differences in depression are reversed, with men manifesting more symptoms! One interpretation of this is that when men are forced to contribute to housework, they begin to suffer the detrimental effects which are believed to be associated with this work. Oakley (1974, in Keith & Schafer, 1982) painted a gloomy, but probably realistic picture, of housework. She suggested it involved monotony, loneliness, isolation, long work weeks, lack of pay and low social prestige. It is therefore not surprising that Oakley found widespread dissatisfaction with housework among homemakers.

Paid employment is believed to enhance self-esteem through access to social ties, especially when these are lacking in the parenting and spouse roles

(Nathanson & Lorenz, 1982). This argument is based on role theory, which postulates that a diversity of roles protects a woman from psychological distress by allowing her refuge in other roles if one is dissatisfying (Baruch, Barnett & Rivers, 1985). Employment is believed to be an antidote to depression if it creates options and "gives leverage against the demands of the nurturant roles" (Giele, 1982, p. 123). There is a positive correlation between the number of roles a woman has and the various indices of wellbeing; the more roles she occupies, the greater the number of areas in her life a woman reports experiencing pleasure (Pietromonaco et al. , 1984, in Baruch & Barnett, 1986).

On the other hand, there is evidence that employment has either a neutral or a negative effect on women's psychological wellbeing. Shamir (1985) found a nonsignificant relationship between married women (of all ages) being employed and their positive psychological adjustment. Whereas Joshi, Garon and Lechasseur (1984) found no difference in self-esteem and loneliness levels between employed versus nonemployed women. In a review of the literature on role conflict for working mothers, Behrman (1980) concluded that combining a career with marriage and family is stressful. Behrman found that women working outside the home reported more dissatisfaction than homemakers. One likely explanation is 'role overload'; that is, working women are usually expected to perform most of the housework and child care in addition to working fulltime. The average woman who works fulltime still performs over 75 percent of the housework and over half of the child care (Stokes & Peyton, 1986). Stated bluntly, the main problem is not 'role conflict' put simply getting men to share the housework!

The other main explanation of the stress involved in fulltime work for mothers is the nature of women's paid work. Baruch and Barnett (1986) suggest that satisfaction with the roles one has, rather than the number or diversity of roles, may enhance wellbeing. Job satisfaction can be defined as a "pleasurable or positive emotional state resulting from the appraisal of one's job or job

experiences" (Locke, 1970, pg 1300, in Griffin & Bateman, 1986). Factors which correlate with high job satisfaction include mental stimulation; coping and succeeding at the job; being part of the whole production process; receiving feedback and praise; being paid and promoted according to one's expectations of entitlement; and having supervisors who minimise conflict and ambiguity (Herzberg, 1957; Locke, 1976; Locke & Henne, 1986). Dissatisfaction with work can exact a heavy psychological and physical price from women. In a brief review, Locke (1976) reports that dissatisfaction with one's work is correlated with psychosomatic symptoms and general psychological maladjustment. Thus, one would expect that dissatisfaction with work predicts depression in women.

Higher satisfaction is found among male workers compared to female workers (Muchinsky, 1983). However, the gender difference in job satisfaction is widely disputed and the variance in satisfaction caused by sex, age and race is estimated to be between only 2 to 5 percent (Landy & Trumbo, 1980). Sauser and York (1978) used the Job Description Index (JDI) and showed that sex differences disappeared when the variables correlated with sex were controlled for. However, the variables which are associated with gender include pay level, occupational status and promotional opportunities. Thus, although gender per se does not correlate with job dissatisfaction, the poorer work conditions which women experience by nature of their gender, may lower their job satisfaction. This gender-based dissatisfaction is largely accounted for by women's confined range of occupations, lower earnings and their under-representation in top management. Statistics on women in New Zealand support this: 1) about a third of women working fulltime in New Zealand are employed in clerical or related occupations; 2) despite the Equal Pay Act, women earn on average only 75 percent of what men earn; 3) there are no female managing directors of major companies; and 4) only one percent of people at the upper levels of the public service are women (Ministry of Women's Affairs, 1986, in McLennan, Inkson, Dakin, Dewe & Elkin, 1987). These unique pressures facing women lead many

them to accept unskilled and unfulfilling jobs to prevent interference with their family roles (Andrisani & Shapiro, 1978). This may result in work dissatisfaction.

The lower pay that women receive may also be a cause of job dissatisfaction. There are speculations that it is the payment for work rather than the participation, which is the important factor in preventing depression (Baruch & Barnett, 1986). This suggests that earning money herself and/or being financially independent from her husband, may immunize a married woman against depression.

Although New Zealand has one of the lowest female labour force participation levels in the Western world, McLennan et al. (1987) suggest that "the popular stereotype that New Zealand women still spend most of their adult lives as fulltime wives and mothers is rapidly becoming a myth." (p. 230). In fact over 85 percent of New Zealand mothers with 5 to 6 year olds are in paid work (McLennan et al., 1987) and it is estimated that most women have up to 30 years of work ahead of them once the youngest child begins school. Thus, It is clear that New Zealand married women face social barriers against working outside the home. In addition, they have a narrow choice of occupations, promotional opportunities, and limited support from employers and husbands. It has been assumed in the past that women were *content* to have 'just any job' (Behrman, 1980); a more likely explanation is that women have been *forced* to accept any job.

In conclusion, engaging in employment appears to protect women against depression. However, the nature of women's employment combined with their traditional roles means that their work is often unsatisfying. Thus, occupational level and reported job satisfaction may be important predictors of depression. In addition, uncertainty remains over the effect of paid versus nonpaid work on women's depression.

midlife

"The link between theoretical and empirical work concerning women in the middle years is weak" (Barnett and Baruch, 1978, p. 190).

The issues relevant to depression in women generally, are also relevant to middle aged women specifically. However, there are some unique features of middle aged women's experiences which may predispose them to a greater risk of depression. These experiences include menopause, grown children leaving home and a possible late re-entry into the workforce. Midlife is also a time when many women evaluate their past life decisions and their relationship with their husband.

There is often an existential awareness in middle aged women in the post-parental stage that they are actually alone in the world. Although this awareness may have positive aspects, it is often experienced as loneliness and depression (Junge & Maya, 1985). Rubin (1979) states that women in their 40s searching for their identity are similar to men in their 20s, who face the task of developing their own 'dream' or vision. Women frequently put their personal 'dream' on hold when they marry and have children and it may not be until midlife that it resurfaces. As the children leave home, many women realise they no longer have a 'built in excuse' to avoid pursuing their dream (Junge & Maya, 1985). They now have a second chance to succeed in the productive world outside the home and this may precipitate fear of failure. For middle aged women this fear may be especially vivid because the rules which they grew up with have now been changed.

Many middle aged women still retain the cognitive polarity of home and family versus work. It is now accepted that being a nurturing wife and mother does not provide enough satisfaction in itself. Because there is an acceptance, there is almost an *expectation* that women will combine the many roles of wife, mother and fulltime paid worker. The new opportunities, spurred on by the

women's movement to provide more choices, begin to "feel like a demand" (Rubin, 1979). Rubin actually suggests that the tables have completely turned, with women now receiving cultural disapproval if they do not pursue paid work. As a result, they may experience guilt about enjoying the homemaker role.

Menopause

One unique feature of a middle aged woman's experience, is menopause, or the cessation of the menstrual periods. Menopause is a term used to refer to the wide range of biological and psychological symptoms occurring during the midlife climacteric in women. Common symptoms include hot flushes, tingling sensations, vertigo, insomnia, headaches, irritability, anxiety and depression. The symptoms may appear in any one individual either before, during or soon after cessation of the menses. Woods (1982) reviewed some of the studies and suggested more symptoms are reported if: a woman is married; has an acceptance of traditional feminine attitudes and interests; has experienced important life changes, or has suffered the loss of a role.

Although attitudes towards menopause are negative, the psychological consequences of it remain controversial. Studies show that most women minimise the negative aspects of their own menopause experience, but when asked how menopause affects 'women in general', they provide more negative responses (Neugarten, 1973). Also, the finding that younger women rate menopause more negatively than menopausal or postmenopausal women, suggests that the negative attitude is based on a cultural stereotype (Greene, 1984). There is evidence to suggest that attitudes towards menopause are determined by the social consequences of the loss of reproduction and menstruation and that these attitudes vary cross-culturally (Greene, 1984).

The alleged relationship between menopause and depression is based on clinical studies correlating depression in middle aged women with being currently menopausal. This research has largely been grounded in the assumption that because menopause is a visible sign of reproduction coming to an end

It is a critical event for middle aged women and a major threat to her adjustment. Neugarten (1973) notes that such conclusions have been based on observations of women attending psychotherapy. It is likely that many of these women would have psychopathology pre-dating their menopausal experiences, which has then been attributed to menopause, or has been exacerbated by menopause.

In contrast to clinical populations, community studies have shown that menopause may have only a tenuous link with depression. In a recent, large, community-based survey, Buie (1988) found no confirmed relationship between menopause and depression. Some 75% of women said menopause caused them either relief or indifference. Up to 85% reported never being depressed, 10% said they were depressed occasionally, and 5 % said they were .persistently depressed during menopause. Neugarten (1973), in a study of 100 women aged 45-55, found that only four out of 100 women listed menopause as the change in midlife which most concerned them. When specifically asked about negative aspects of menopause, the women reported not knowing what to expect, pain, discomfort and that menopause represented a sign of aging. Only a few mentioned loss of childbearing or loss of sexual enjoyment. The positive aspects included not having to worry about getting pregnant (75%) and not worrying about menstruation. A small number listed improved relations with their husbands and an improved sex life. According to Berkun (1986), "in the ordinary course of events, the menopause is not traumatic, does not place healthy women at risk of affective disorder, and is considered to be a normal phase that may or may not be accompanied by physical discomforts." (p. 383, Berkun ,1986)

Given this evidence, one might expect that non-psychiatric disordered women who are currently menopausal would not report depression. However, menopause may be conceptualised as a major life change requiring considerable adjustment. Based on the theory of Holmes and Rahe (1967) such a major life change would put menopausal women at risk for depression. Thus,

despite the evidence from similar community studies, there are grounds for tentatively hypothesising that a relationship may still be found between current menopausal status and depression.

Attitudes towards women's roles

Middle aged women who have a strong personal investment in the maternal role are more at risk for developing depression, according to Bart (1971,1972). However, one must be cautious in generalising from the narrow psychiatric sample which Bart used. If one accepts Bart's findings, then women who exclude other roles in favour of the maternal one, may also be expected to hold traditional attitudes about women's roles. Thus, one could reasonably expect that holding traditional views about women's roles would predict depression.

In contrast to women with traditional attitudes, those middle aged women who hold egalitarian attitudes about women's roles and rights may be less affected by depression and anxiety because they believe they have the right to take on alternative roles to that of mother. Women who act on these egalitarian attitudes by engaging in a variety of roles and behaviours could be expected to immunise themselves against depression. This fits with Lewinsohn's (1974) theory on depression, that increased activity and the resulting positive social reinforcement, acts to prevent and/or reduce depression.

As previously mentioned, Rubin (1979) suggests that many middle aged women still retain the cognitive polarity of home and family versus work. Holding these traditional values could cause guilt among homemakers who are aware of recent cultural pressures for women to work. There may be additional guilt once the woman moves into the workforce and believes she is not adequately meeting her family's needs. Thus, one may argue that middle aged women who retain traditional values about women's roles are placed in a double-bind situation; they

may feel distressed if they remain at home fulltime and distressed if they work outside the home.

Relationship with husband

As children grow and leave home, middle aged couples gain the psychological space to re-evaluate their marriage. This may be especially so for women, who having lost day to day responsibilities of mothering, are able to then consider what they want from their relationship with their husband. This is supported by the theory of Sheehy (1976) who proposed that males and females are similar in their social roles and identities whilst young, but begin moving toward opposite poles in their 20s. This occurs as women become fulltime mothers and men become the breadwinners. By their 30s and 40s men and women are at their greatest emotional and social distance. However, in their 50s, they begin converging again in roles and identities. Because the relationship with the husband becomes more important at this life stage, its quality is probably an important variable in predicting depression.

Another relevant theory is that of Levinson, Darrow, Klein, Levinson and McKee (1978) who state that women sacrifice their own 'dreams' in their 20s and 30s in favour of supporting their husbands'. As women evaluate many areas of their lives in their 40s and 50s, they may well be asking "was the sacrifice worth it?" The answer to this question may depend on whether the husband has achieved his dream, whether the husband recognises the contribution of his wife, and the quality of the couples' relationship. The outcome of this relationship evaluation may effect a middle aged woman's psychological adjustment and predict depression.

Relationship with children:

Borland (1982) describes the empty nest syndrome as the "period of life between the departure of the last child from the home and the onset of old age." (p. 117) This stage of a woman's life, also termed the post-parental stage, is supposedly characterised by depression, identity crises, adjustment problems, confusion and role loss. Women are alleged to suffer in this way because the mothering role is ideologically the main work of women in our society.

Supporting this theory is the work of Bart (1971,1972) who found a relationship between women in the post-parental stage of life and depression. Bart found that women most affected by children leaving were 'supermothers' and 'superhousewives', who were self-sacrificing and had devoted their lives to their children. Bart suggested they expect a 'payoff' for this martyrdom and were severely affected if their children failed to meet their needs. She also postulated that there are few clear societal norms governing the relationship between a woman and her grown children; thus when the children leave home the woman's situation is normless.

A major shortcoming of Bart's research, however, was her use of clinically depressed subjects, making it difficult to generalize her findings to women in a community sample. Rubin (1979) argues that the empty nest syndrome is a myth, generated from the belief that the only meaningful role for a woman is mothering. This ignores the reality that most women are now employed in paid work, implying an obvious discrepancy between the ideology and the social/economic reality. Borland (1982) states that the studies showing the empty nest period as a 'crisis' time for middle aged women, have used only clinical samples. Indeed, Borland reports that many studies using community samples have shown that the post-parental stage is equally as satisfying, if not more satisfying, than other life stages. For many middle aged women, their freedom from the mothering role seems to open up new opportunities in their lives. Supporting this is research by Ward (1987), carried out on a community

sample of married, middle aged, Singaporean women. Ward found that the more children living at home, the greater the number of general, midlife crisis symptoms. She reported that these findings were not consistent with the empty nest syndrome, but rather supported Minturn and Lambert's (1964) theory that being exclusively responsible for childcare has negative emotional consequences.

The measure in Ward's study was, however, one of general symptoms judged to be associated with midlife crisis (for example, personal identity, role satisfaction and health), rather than specifically depressive symptoms used in the present study. This highlights a problem for researchers of the post-parental stage of female development: that there is little consistency in the type of maladjustment symptoms studied, nor in the instruments used to measure the symptoms.

Turning attention to New Zealand women specifically, there is the possibility that a culturally-specific empty nest syndrome may exist. Gillespie (1980, in Romans-Clarkson, in press) claims that motherhood is more valued in New Zealand because the proportion of married women in the paid workforce is lower than in other Western countries. If one accepts that the importance of the mothering role is what keeps New Zealand young mothers away from paid work, then this situation may have detrimental effects on New Zealand mothers in midlife. Those women in the post-parental phase have lost day-to-day participation in the maternal role, a role which is supposedly highly valued in New Zealand. In addition to losing this culturally-valued role, New Zealand middle aged women do not receive any special status as they move into midlife. Cross-cultural research as shown that middle aged women show increased wellbeing in those cultures where they are bestowed respect and status after child-rearing (Greene, 1984). It could be that New Zealand middle aged mothers lose all the advantages of the culturally-valued maternal role when their children leave home, but receive few of the post-parental advantages. No research has

specifically looked at the post-parental period in New Zealand women. The most recent research on psychiatric disorder among a community sample of New Zealand women (Romans-Clarkson), has focused on mothers with young children. This gap in empirical research leaves the question open of a culture-specific empty nest syndrome existing within the New Zealand female population.

In conclusion, although researchers of the post-parental phase generally agree on the definition of 'post-parental', the consistency in the research ends there. The diversity in types of populations tested (clinical, community, cross cultural) and dependent measures used, has resulted in a somewhat scattered body of empirical research, from which it is difficult to make definitive conclusions. To a large extent this is a result of the post-parental research still being in its infancy. Certainly, a considerable body of empirical research is required in New Zealand, before any conclusions may be drawn about the extent and nature of the empty nest syndrome.

Work

Work would seem to be particularly important for middle aged women, given that their child care responsibilities have decreased, leaving them open to consider re-entering the workforce. (Andrisani & Sharpiro, 1978). However, in making this move, middle aged women may face the problems of married women in general in the workplace, as well as additional difficulties. These include "the obsolescence of skills [and] readjustment problems occasioned by long absences from the work force" (Andrisani & Shapiro, p. 16). They note that these additional factors may restrict middle aged women's job satisfaction.

The conflict of roles seen in women with younger children may also be strong in middle aged women for a different reason. Although they may no longer have dependent children, many women in this age group remain family and friend oriented rather than work centred (Bumagin, 1982). Job satisfaction is

highest among those who have a 'job-oriented central life interest' and lowest among those who do not place paid work as the central priority in their lives (Muchinsky, 1983). It is unclear whether this finding is based on research conducted on male populations alone and has then been generalised to women.

This raises the importance of considering women's unique responsibilities and relationships with others when assessing work satisfaction. It may be that women have a more balanced view towards the relative importance of work and relationships. They may consider both to be equally important, rather than work dominating their lives. There is a danger that men's work priority will be judged both as the norm for all people and as a healthier attitude. Middle-aged women in particular may provide good role models of the more balanced approach to work and family life.

Contrary to suggestions that low investment in work relates to low satisfaction, there is evidence that job satisfaction is higher for older women and lower for younger women (Glenn, Taylor & Weaver, 1977, in McLennan et al., 1987). In addition, Nathanson and Lorenz (1982) in a survey of 45 to 64 year old women found that they were more likely to report themselves in excellent health, have fewer sick days and make fewer visits to the doctor compared to younger workers.

Rationale

Depression is a common problem in women and many explanations have been offered to account for the greater prevalence found in this group. These theories have focused on women's socialisation, stressful adult roles, cognitive styles and alleged biological vulnerability.

Among middle aged women (defined in this study as 40 to 60 years), the risk of depression is supposedly further increased by the experience of menopause and grown children leaving. However, the role of these factors in

predicting depression remains uncertain. Research on depression in middle aged women has been scarce compared to that of younger women. Research to date has concentrated on one of two central themes; menopause and children leaving home. In most cases, researchers have neglected including a wider range of likely predictors of depression. This seems surprising given that factors such as cognitive style, life changes, work status (employed versus nonemployed), work satisfaction and relationship quality have all been shown to be associated with depression in women. Furthermore, few studies have provided a conceptual framework in which to group likely predictors of depression in midlife women.

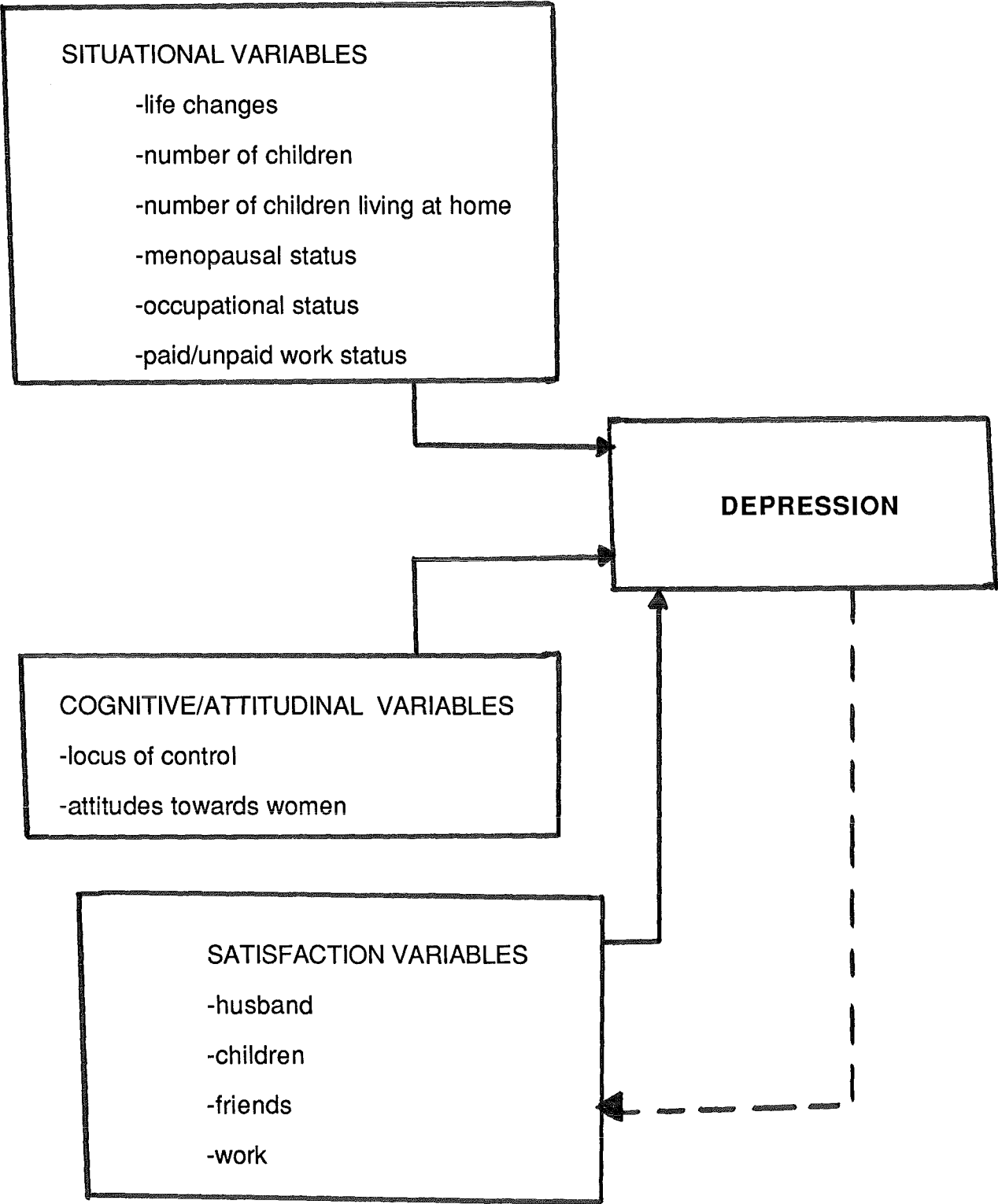
This study aimed to address these shortcomings by selecting variables which covered many different areas of a middle aged woman's experience. From these variables a conceptual model was developed to predict depression in midlife women who were married with children..

Model

The three groups of variables - situational, cognitive/attitudinal and satisfaction-related - judged to best predict depression in midlife women have been outlined. The 'situational' variables which involve environmental characteristics, included life changes, number of children, number of children living at home, menopausal status, occupational status and paid/unpaid work status. The 'cognitive/attitudinal' variables, defined as personal attitudes and cognitive schemas, included locus of control and conservative/liberal attitudes to women's roles. The 'satisfaction' variables, encompassed the quality of relationship with significant people (husband, children and friends) and satisfaction with work.

The first two groups of variables were judged to be causally prior to the onset of depression, whereas the temporal causality of the satisfaction variables seemed less apparent. This predictive model is outlined in Figure 1.

Figure 1: A predictive Model of Psychological Maladjustment in Middle aged Women



Hypothesis

The central hypothesis of this study was that the situational, cognitive/attitudinal and satisfaction variables selected would predict depression in midlife women. The way in which individual variables within these three groups were judged to predict depression was as follows:

Situational

That depression would be predicted by a high number of life changes, being currently menopausal, having a greater number of children, having a greater number of children living at home, low occupational status and participation in unpaid work.

Cognitive/Attitudinal

That holding an external locus of control and holding traditional attitudes towards women's roles would predict depression.

Satisfaction

That depression would be predicted by low job satisfaction and low satisfaction with all or any of a woman's central relationships; husband, children and friends.

METHOD

Subjects

A total of 180 women aged between 40 and 60 years and married with children, participated in this study. They all lived in or near Christchurch, New Zealand, where the questionnaires were distributed. The mean age of the subjects was 49 years (SD= 5.95).

A clear majority of women engaged in paid work (77 percent), with only 23 percent working fulltime in the home in unpaid work(SD = .42). The most common occupation groups were administrative and managerial, followed by homemakers and then clerical workers. Table 1 contains the percentage of subjects in each occupational group.

Women had an average number of 2.9 children (SD=1.05) while the average number of children still living in the home was 1.4 (SD=1.19).

The majority of women rated themselves as pre-menopausal (58 percent), while 38 percent met the criteria of post-menopause and 4 percent were currently experiencing menopause.

Table 1

Percentage of women in each occupational group

<u>Occupation</u>	<u>percentage</u>
Group 1: Professional and technical	10.8%
Group 2: Administrative and Managerial	25 %
Group 3: Clerical and secretarial	21.6%
Group 4: Sales	9.1%
Group 5: Homemakers	23 % *
Group 5(paid),6 &7: Agricultural/labouring/ service workers	4.5%

*this was the only category of unpaid workers

Materials

An eight page questionnaire was employed in the study (Appendix 1 to 7). Personal information was gathered concerning subjects' age, number of children, number of children still living at home, occupation and participation in paid work. The remainder of the questionnaire dealt with the dependent measure, depression, and the independent variables. These included attitudes towards women, internal/external locus of control, life changes, menopausal status, number of children and children living at home, satisfaction with husband/children/friends, occupational status, participation in paid/unpaid work and satisfaction with work.

Depression

This measure was based on the depression subscale of the Cornell Index (Weider, Wolff, Brodman, Mittellemann & Wechsler, 1949), a scale measuring psychiatric and psychosomatic symptoms and suitable for use with a community sample. The authors report the scale is valid and reliable ($\alpha = .95$). The items measured depression equally in the domains of cognition, somatic and affect. This spread of items was judged more suitable for a middle aged female population compared to the Beck Depression Inventory, which is weighted strongly towards cognitive items and the Zung Self-Rating Depression Scale, which is low in number of affective items (Rehm, 1987). In addition, many of the depression items on the Cornell Index also tap into anxiety, making it an appropriate measure in this study, given the common occurrence of mixed anxiety/depression disorders among women (Jenkins & Clare, 1985). The scoring was changed from a forced-choice to a 1-5 likert scale, asking to what extent the woman experienced the depressive symptoms (see Appendix 1)

Attitudes towards women

The Attitudes Towards Women Scale (Spence and Helmreich, 1972) describes the rights, roles and privileges women ought to have or be permitted. The Cronbach alpha was .89 when the scale was used with a college population.

Using the original 55 items generated by the authors, 20 items were chosen which were believed to provide the most amount of variance within a middle aged, female population.

Subjects indicated agreement on a 0-4 scale from 'disagree strongly' to 'agree strongly'. Total scores ranged from 0 to 80, with a high score indicating a profeminist, egalitarian attitude (see Appendix 2)

Life changes

The social Readjustment Rating Questionnaire (SRRQ) was devised by Holmes and Rahe (1967) to quantify the amount of stress experienced due to life changes (see Appendix 3). It contains 43 life events, each assigned a value according to how much readjustment it requires. Three items were deleted from the scale for this study; 'divorce', 'change in schools' and 'Christmas'. The first two were considered to not apply to married, middle aged women and the latter was not relevant as the event, Christmas, did not occur within the six month time frame subjects were asked to rate. Six months was chosen as the time period for subjects to consider which life events had occurred in their lives as this time period was judged most important in predicting depression. When untreated, depression commonly runs in episodes of approximately six month periods (Diagnostic and Statistical Manual III-Revised, 1987). It was considered that a shorter period of six months, as opposed to nine or twelve months generally used in research, would ensure any depression associated with the life events would still be occurring and not have run its course.

Internal / external locus of control

Rotter's (1966) original Internal/External Locus of Control Scale consisted of 20 forced-choice items measuring the internal and external attributions people make about their environment.

From this original format, Collins (1974) converted the Internal/External (IE) scale into a likert scale and added additional items. Collins also distinguished four subscales within the IE scale: easy/difficult world; just/unjust world; predictable/unpredictable world; and politically responsive/unresponsive world. The 20 items used in the present study were chosen equally from Collins' four factor groups, with half representing internal attributions and half external (see Appendix 4).

Menopause

There is no universal agreement on the most suitable way to classify menopausal status. Both Neugarten (1973) and Berkun (1986) offer classifications which are conceptually sound, but which lack concise definitions of each menopausal group. For example, Neugarten somewhat loosely defines menopausal as 'getting cessations' of the menstrual periods, and Berkun describes it as "a clear change in the menstrual pattern." Such definitions are too vague and cannot be quantified on a questionnaire.

In contrast, Nathanson and Lorenz (1982) provide quantitative definitions for all three menopausal categories - pre, post and currently menopausal - and offer a clear definition for the difficult menopausal category.

Using their definitions, Pre-menopausal was defined as having had a period within the past 3 months; currently menopausal as having had one's last menstrual period within the past 3 to 12 months; and post-menopausal as the last period having occurred at least 12 months ago. Subjects were asked to indicate what was "presently happening with your menstruation (or periods)" by choosing one of the three categories. As menopause is known colloquially

as "the change of life", both terms were used in the instructions (see Appendix 5).

Work

Both quantitative and qualitative information about women's work was obtained. Subjects were asked to state their actual occupation and give a brief description of what their work mainly involved. From this information, occupations were categorised into one of seven occupational groups, using the International Standard Classification of Occupations (Johnston, 1983). The ISCO lists 877 occupations for New Zealand women, which are coded into seven major occupational groups: professional(1); managerial/supervisory(2); clerical(3); sales (4); unpaid work in the home and paid service workers(5); agricultural/fisheries (6); transport/labouring(7). The group 5 paid service workers were separated out from the unpaid homemakers in order to make the distinction between paid and unpaid work. Due to the small number of subjects in service work and groups 6 and 7, these were all collapsed together.

For qualitative information on women's satisfaction with their work one scale of the Job Description Index (JDI) was used. (Refer to Appendix 6) The JDI (Smith, Kendall and Julin, 1969) is the most used and researched measure of job satisfaction, according to Muchinsky (1983). Test-retest reliability over a 16 month period is .57 (Schneider & Dachler, 1978, in Muchinsky). Five subscales make up the JDI, all measuring different facets of job satisfaction, including satisfaction with the work itself; supervision, pay; promotion ; and co-workers. It was decided to use only the scale looking at satisfaction with the work itself to prevent the questionnaire becoming unrealistically long. The subscales are scored separately.

The answering format was also changed from a 'yes', 'no', 'unsure' structure, to a five point scale, to provide more flexibility in answering. The scale was comprised of 18 descriptive words, half positive (for example,

'challenging') and half negative (for example,'boring'). Subjects were instructed to rate how well each word described their work on the five point scale of 'not at all' to 'a great deal'. Total scores ranged from 0 to 36 with a high score indicating greater satisfaction with one's work(see Appendix 6).

Relationship with husband

A women's 'quality of relationship' with her husband was measured by items which tapped closeness and satisfaction and to what extent she wished the relationship to continue, or future orientation (see Appendix 7 for all three scales).

For this study 11 questions from the Close Relationships Questionnaire (Maxwell, 1985) were used and one general question from Maxwell's Marital Satisfaction Questionnaire.

The Closeness of Relationship Questionnaire measures how close a person feels to her partner, by asking to what extent she engages in a number of behaviours believed to reflect intimacy; for example, self disclosure, 'being oneself' around one's husband, sharing attitudes and interests, and giving and receiving help. Subjects answered on a 0 to 4 scale from "not at all" to "a great deal". Possible scores ranged from 0 to 44, with a high score representing a high amount of perceived closeness.

Satisfaction with the relationship was measured by the direct question, "How satisfied are you with your relationship with your husband?" Subjects responded to this by circling one number from a list 0 through to 6, with 0 entitled "not at all satisfied" and 6 entitled "very much satisfied".

Maxwell points out that satisfaction is *"not an objective fact of the relationship, but of the extent to which behaviour approaches a subjective criterion of what may be desirable or possible in the relationship."*

In addition to satisfaction and closeness, the quality of relationship was measured by the question: "how much do you want this relationship to continue into the future?" Subjects responded on a 1 to 6 scale of to "definitely do not want it to continue" to "very much want it to continue"

Maxwell (1985) reports a high correlation between the Marital Satisfaction Questionnaire and the Closeness of Relationships Questionnaire ($r=.72$). She suggests that this demonstrates a strong association between behaviour (as measured by the Closeness Of Relationships Questionnaire) and satisfaction with the relationship.

Relationship with children and with friends

Maxwell (1985) has shown that similar behaviour predicts closeness between married couples as predicts closeness between friends and between a mother and her children.

Thus, to measure how close a mother felt to her children and friends, the same 11 questions from the Close Relationships Questionnaire were used (refer Appendix 7). The other qualitative information obtained was through the direct question, "how satisfied are you with your relationship with her children" and "how satisfied are you with your relationship with your friends". As with the relationship with husband, this question was intended to give a general measure of satisfaction with the relationship.

As with the relationship with husband, subjects were asked to rate how much they wanted the relationship with their friends to continue in the future. This question was judged inappropriate when applied to children and was not used. Although mothers may experience low satisfaction with their relationship with their child and not wish to see them in the future, the role of being a parent is a permanent, biologically-fixed relationship, which cannot be 'ended' as can marriage or friendship.

Procedure

Subjects were contacted through the secretaries of Christchurch social clubs (for example businesswomen's clubs, gardening clubs, religious organisations), as well as some workplaces. The social clubs were chosen randomly from a local listing of all social organisations. Several workplaces were approached with the aim of obtaining a more balanced occupational sample, as it was thought that most women attending social organisations would belong to middle and upper socio-economic groups. The workplaces approached were those in which women in this age group were involved in food service and cleaning, which are rated as lower occupational groups and of a lower socio-economic status.

The purpose of the study was explained to the organisation secretaries and the workplace supervisors. They were asked if they would be willing to distribute some questionnaires at their next monthly meeting of the club, or a convenient time in the workplace.

Participation was voluntary and anonymous and subjects completed the questionnaire at home in their own time, returning it by mail in stamped envelopes provided.

The questionnaire consisted of eight pages and an accompanying explanation (see Appendix 8). Of the 340 questionnaires distributed, 183 were returned, a return rate of 53.8 percent. Two subjects were outside the specified age criteria, and one questionnaire was incomplete; hence, 180 were used in the present study.

RESULTS

Preliminary data analysis consisted of testing the Internal Reliability of each of the scales using Cronbach's Alpha. Then zero order correlations were performed on all variables. An hierachical multiple regression equation was carried out to determine which variables, if any, predicted depression. The Statistical Package for Social Sciences (SPSSX) was employed for the data analysis.

Reliability of Scales

Reliability of the scales is presented in Table 1.

Exploratory Correlations

Zero order correlations were carried out on all continuous variables to check for multi-collinearity (1) (see Appendix 9). In doing so, it was found that there was a reasonably high correlation between all the 'quality of relationship' variables ($p<.001$); closeness, satisfaction and future orientation. Thus, they were collapsed into one Quality of Relationship variable for husband, children and friends respectively.

(1).If two independent variables are highly correlated with each other, then there are difficulties in interpreting the multiple regression equation.

Table 2
Reliability of Scales

<u>Scale</u>	<u>Cronbach's Alpha</u>
Depression	.83
Attitudes Towards Women	.83
Locus of Control	.69
Quality of relationship with children	.82
Quality of relationship with husband	.94
Quality of relationship with friends	.86
Satisfaction with work	.85

Those items with an Item Total Correlation of less than .2 were deleted from the final version of the scale (see Appendices 1 to 7)

Multiple Regression: Predictive Model of Depression

For the multiple regression equation, all independent variables were entered in two different groups in a hierachical regression. They were entered in this manner because some variables were judged to be more likely to occur prior to depression (menopausal status, life changes, attitudes towards women, locus of control, number of children, number of children at home, occupational status and paid/unpaid work status), whereas for others the direction of causality was less clear (quality of relationship with husband, children and friends; satisfaction with work). These latter variables may result from depression or occur at the same time temporally, rather than being

causally prior to depression. The first group of variables were significant ($F=2.8$; $p<.03$), due to the major contribution of the IE variable, which was the only significant predictor of depression ($T=3.81$; $p<.001$). The second group of 'satisfaction' variables did not make a significant contribution (see Table 2).

The variance on all scales was checked and found to be satisfactory (refer to Appendix 10).

Table 3
Multiple Regression Analysis - all variables

<u>Variable</u>	<u>Beta Weight</u>
Number of Children	-.12
Number of Children	
living at home	.003
Occupational status	-.07
Paid/unpaid Work	-.01
Quality of relationship	
with husband	-.01
Quality of relationship	
with friends	-.08
Quality of relationship	
with children	.14
Satisfaction with Work	-.15
Attitudes Towards Women	.03
Internal/External Locus of Control	-.31*
Life Changes	.06
Menopausal Status	-.01

R squared=.16

* $p<.001$

DISCUSSION

The greater prevalence of depression among women compared to men has led to a body of empirical research aimed at identifying the causes of this discrepancy. Among married women aged 40 to 60 years, the risk of depression may be even greater, given their experience of menopause and children leaving home. This study aimed to develop a predictive model of depression in middle aged women, distinguishing situational, cognitive/attitudinal and satisfaction variables. Within these groups the specific variables hypothesised to predict depression included: a high number of life changes, being currently menopausal, having a greater number of children, having a greater number living at home, low occupation, participating in unpaid work in the home, holding an external locus of control, having conservative attitudes towards women's roles, low quality of relationships and low satisfaction with work.

Results indicated that external locus of control was the only variable which predicted depression in middle aged women. The findings are discussed in light of this result. Included in this discussion are speculations about the nonsignificance of the other variables and suggestions for future research.

The results of this study supported the hypothesis that having an external locus of control predicted depression in middle aged women. This is consistent with research showing women hold more external loci of control than men (Barnett & Baruch, 1986) and that such an attributional style is associated with depression (Abramson et al., 1978; Flett, Pliner & Blankstein, 1989). This finding extends the external validity of Abramson et al.'s assumption. In addition, the results make a contribution to knowledge

about the relationship between depression and attributions in middle aged women specifically.

Given that many variables have previously predicted depression, but did not in the present study, this raises the question of some fault with the dependent variable. The scale used to measure depression, consisting of items from the Cornell Index, was reliable and demonstrated reasonable variance. However, a closer analysis of the content validity shows that the items which tested for affective symptoms of depression may not have been appropriate for use with a non-psychiatric population.

The content validity of self-report measures of depression can be established by noting whether the items cover the different domains in which depression is expressed: cognitive, affective, somatic and behavioral (Rehm, 1987). The items selected for the dependent variable in this study give relatively equal weight to all domains. Indeed, this was the rationale for choosing this scale. The depression items used consisted of: 40 percent cognitive (compared to 65 percent used in the Beck Depression Inventory); 27 percent affective (both the Zung Self-Rating Depression Scale and the BDI have no more than 15 percent); 27 percent somatic; and 6 percent behavioral items (which is comparable with other scales).

The substantial proportion of cognitive items included in the depression measure probably accounted for its significant relationship with the cognitive style variable. At first glance, it would also seem reasonable that the affective items would correlate with the satisfaction variables. This is based on the assumption that satisfaction is primarily an affective state and dissatisfaction should be reflected in reports of low mood on the depression measure. Thus, the finding that none of the three quality of relationship variables predicted depression is surprising. A closer look at the affective items in the depression scale suggests that they may have been an inappropriate measure of affect. More specifically, the affective

symptoms may have been worded too extremely: for example, "my emotions are *dead*" and "I feel *miserable* and blue". In addition they may have been too situation specific ("I am quiet and sad while at a party") to be relevant to a middle aged population. This is supported by the statistical results which show that for the affective items the range of means is nearly half that of the cognitive and somatic items (affective range = .50; cognitive range = .94; somatic range = .93; refer to Appendix 11). Hence one can speculate that these affective items may have accounted for the nonsignificant relationship of depression with quality of relationships. The suggested problems with the dependent measure may also account for the nonsignificant results of the other variables, although perhaps to a lesser extent than with the satisfaction variables.

Menopausal status did not predict depression, a finding consistent with another community study (Buie, 1988). The tentative hypothesis of the present study was that current menopausal status may be associated with depression. However, this finding must be interpreted with caution as there were very few women in the 'currently menopausal' category (only 7.2 percent of the total sample). A likely explanation for this low percentage is that the criteria for classifying women as menopausal was too narrow. There is no standardised way of classifying menopausal status. For the present study, the system recommended by Nathanson and Lorenz (1982) was used. This provides concise, quantitative definitions of pre, post and current menopausal status (refer to page 32). Current menopausal status is defined as having a menstrual period within the past three to 12 months. The definition of the time span in which menstrual periods end may need to be extended to ensure that more subjects are classified as menopausal (for example, within the past three to 18 months or several years). Unfortunately, the only present classification systems offered to researchers are vague and nonquantifiable; for example, "getting

cessation" (Neugarten, 1973) and "a clear change in the menstrual pattern" (Berkun, 1986). There appears to be a great need for the development of a reliable, quantifiable classification system.

The suggestion that researchers should widen their definition of menopause raises the conceptual issue of what menopause is. One major conceptual problem with making these inferences about the affect of menopause on women's psychological state, is that the physical changes of menopause occur at a time when middle aged women have many other psychosocial events occurring in their lives. For example, adjusting to their children leaving home, reevaluating their relationship with their husband and returning to the workforce.

Neither low occupational status, nor low satisfaction with work significantly predicted depression, although the trend was in the direction of lower status occupations being associated with more depression. Perhaps with a larger sample in each occupational group, the trend of lower occupational status predicting depression may have given a more definitive result.

The present study was one of the first to look at the psychiatric/psychological consequences of the post-parental period on middle aged women in New Zealand. It was hypothesised that because the mothering role is culturally valued in New Zealand (Gillespie, 1980 in Roman-Clarkson, in press), this may cause distress in middle aged mothers when their children leave home. The results suggest that the alleged empty nest syndrome does not exist to a great extent among pakeha New Zealand women. On the other hand, New Zealand middle aged women do not appear to be adversely affected by the number of children living in the home, as Ward (1987) found. In conclusion, it may be that although New Zealand middle aged mothers do not feel distressed by

the active parenting role, they also do not feel distressed when they move into the more passive post-parental role.

Cognitive expectations may play a large role in mothers' perceptions of how they should feel. In New Zealand, as opposed to Britain or the United States, there is a general expectation that older adolescents will leave home and go 'flatting' with others of the same age. The lower costs of accommodation in this country compared to more populated nations, makes this financially feasible. Thus, parents probably have a clear expectation that their children will leave the home in their late teens. With this expectation, may come mental preparation for the leaving and practical planning for ways to take advantage of activities outside the mothering role. If this expectation was met, it would not necessarily mean that those women affected would report more depression. This situation may be seen as a positive alternative to the norm and bring unexpected pleasure. This explanation could account for the result that New Zealand women showed neither distress at children leaving, nor distress at them remaining. What we do not know in the present study is whether the children who were still living at home were at the age which New Zealand parents expect their children to leave.

Limitations

Perhaps the most important methodological shortcoming in the present study was the uncertain content validity of some of the dependent variable items. The affective symptom items were perhaps worded too extremely to be relevant to a nonpsychiatric population who would presumably experience mild depression. The use of terms to more appropriately describe mild low mood may have increased the content validity of the scale.

Another shortcoming was the narrow criteria used for classifying women as currently menopausal. This resulted in a low percentage of women reporting themselves as currently menopausal. The use of a wider definition of what constitutes 'menopausal' may have yielded a significant correlation with depression.

Perhaps in the present study the 'unpaid work' category was confounded by including both women who did voluntary work and women who were homemakers. If a larger number of women participating in voluntary work outside the home were included in the sample, then one could more conclusively test whether the lack of pay for work affected women's maladjustment. One problem with obtaining a larger sample of unpaid voluntary workers is that few women are engaged in voluntary work outside the home without also participating in some type of paid work. Married women constitute nearly half of the total workforce in New Zealand (Department of Labour, 1980, in McLennan et al.).

Future research

More detailed research is needed on the specific role played by attributions in contributing to women's greater prevalence of depression. There is also much room for the exploration of the origins of women's 'depressive' cognitive styles. It is likely that the tendency to see her behaviour as independent of outcomes is related to a woman's socialisation. This closely fits the Gender Role Hypothesis of female depression (see Landrine, 1988), which states that girls are brought up to acquire behavioral traits which put them at risk for depression (for example, dependency, helplessness and nonassertion). It seems feasible that girls and women acquire an external cognitive style in keeping with these behaviours. The temporal causality of cognitions in relation to 'depressive behaviours' also remains uncertain. A conceptual issue yet to be

be addressed is whether the cognitions are causally prior to the behaviours, occur simultaneously, or subsequently.

The role of attributional styles in relation to menopause and children leaving home is another area of cognitive research in need of exploration. A woman's attributions about her menopause may play a crucial role in any subsequent depression. Mirowsky and Ross (1986) found that women who experienced menopause outside of the 'accepted' and expected age range (25-43 and 54-74) experienced 70 percent more symptoms of depression than women experiencing menopause between the ages of 44 and 53. Mirowsky and Ross drew on the work of Lennon (1982) who proposed that the appropriate timing of life events is socially defined. People become distressed if their experience of an expected event is outside this expected time frame. Apparently by anticipating the arrival, people can adequately rehearse and prepare for the event.

A study of cognitive expectations in mother-child relations may shed some light on the lack of association between depression and the number of children living at home. It seems important to study the role of mothers' (and fathers') cognitive expectations about children leaving home and any subsequent cognitive dissonance if this does not occur on schedule.

Conclusion

This study aimed to establish a model of variables which predicted depression in women aged 40 to 60 years. The variables hypothesised to predict depression were selected on the basis of the literature available on women generally and depression in middle aged women specifically. Holding an external locus of control was the only variable which significantly predicted depression in middle aged women. This result is consistent with the literature suggesting that women tend to perceive outcomes as independent of their own behaviour. The present finding makes a new

makes a new contribution to the literature on the causal role of attributional styles in depression among middle aged women.

No remaining variables significantly predicted depression. Possible explanations for this and suggestions for future research have been discussed.

It is perhaps significant in itself that a 'cognitive' variable was found to predict depression. The role of cognitions in shaping emotions and behaviour is now a blossoming research area in psychology and clinical psychology (see Forsterling, 1988) It is hoped that this flux of cognitive-centred research will incorporate female depression, particularly that of middle aged women.

REFERENCES

- Abramson, L. Y., Seligman, M. E. P., & Teasdale, J. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87, 49-74.
- Amenson, C. S., & Lewinsohn, P. M. (1981). An investigation into the observed sex differences in prevalence of unipolar depression. Journal of Abnormal Psychology, 90, 1-13.
- Andrisani, P. J., & Shapiro, M. B. (1978). Women's attitudes toward their jobs: Some longitudinal data on a national sample. Personnel Psychology, 31, 15-34.
- Barnett, R. C., & Baruch, G. K. (1978). Women in the middle years: A critique of research and theory. Psychology of Women Quarterly, 3, 187-197.
- Barnett, P. A., & Gotlib, I. H. (1988). Psychosocial functioning and depression: Distinguishing among antecedents, concomitants, and consequences. Psychological Bulletin, 104, 97-126.
- Bart, P. B. (1971). Depression in middle aged women. In V. Gornick & B. K. Moran (Eds.), Woman in Sexist Society. New York: Basic Books.
- Bart, P. B. (1972). Depression in middle aged women. In Bardwick, M. (Ed.), Readings on the psychology of women. Harper and Row: New York.
- Baruch, G. K., & Barnett, R. (1986). Role quality, multiple role involvement and psychological well-being in midlife women. Journal of personality and social psychology, 51, 578-585.
- Baruch, G., Barnett, R., & Rivers, C. (1985). Lifeprints: New patterns of love and work for today's women. New York: Signet Books.
- Baruch, J., & Brooks-Gunn, J. (eds.). (1984). Women in midlife. New York: Plenum Press.

Behrman, D. L. (1980). Family and/or career: Plans of first-time mothers.

Ann Arbor, Michigan: University of Michigan Press.

Berah, E. F. (1983). Sex differences in psychiatric morbidity: An analysis of Victorian data. Australian and New Zealand Journal of Psychiatry, 17, 266-273.

Berkun, C. S. (1986). In behalf of women over 40: Understanding the importance of the menopause. Social Work, 31, 378-384.

Bernard, J. (1976). Homosociality and female depression. Journal of Social Issues, 32, 213-238.

Borland, D. C. (1982). A cohort-analysis approach to the empty nest syndrome among three ethnic groups of women: A theoretical position. Journal of Marriage and the Family, 44, 117-129.

Brewer, A. M., Cunningham, J. D. , & Owen, J. (1982). Self-esteem, sex roles and domestic labour in single-career and dual-career couples. Australian Journal of Sex, Marriage and Family, 3, 77-86.

Briscoe, M. (1982). Sex differences in psychological wellbeing. Psychological Medicine Monograph Supplement, 1. Cambridge : Cambridge University Press.

Brown, G. W. (1987). Social factors and the development and course of depressive disorders in women. British Journal of Social Work, 17, 615-634.

Brown, G. W. & Harris, T. O. (1978). Social origins of depression: A study of psychiatric disorder in women. London: Tavistock Publications.

Buie, J. (1988, July). Menopause-depression link appears unfounded. Public Interest, pp. 47.

Bumangin, V. E. (1982). Growing old female. Journal of Psychiatric Treatment and Evaluation, 4, 155-159.

- Cassel, J. (1974). An epidemiological perspective of psychosocial factors in disease etiology. American Journal of Public Health, 64, 1040-1043.
- Collins, B. E. (1974). Four components of the Rotter Internal-External Scale: Belief in a difficult world, a just world, a predictable world, and a politically responsive world. Journal of Personality and Social Psychology, 29, 381-391.
- Constantini, A. F., Braun, J. R., Davis, J. & Iervolino, A. (1973). Personality and mood correlates of schedule of Recent Experience Scores. Psychological Reports, 32, 416-418.
- Dean, A, & Lin, N. (1977). The stress-buffering role of social support. Journal of Nervous and Mental Disease, 165, 403-417.
- Dekker, D. J. , & Webb, J. T. (1974). Relationships of the Social Readjustment Rating Scale to psychiatric patient status, anxiety and social desirability. Journal of Psychosomatic Research, 18, 125-130.
- Diagnostic and Statistical Manual of Mental Disorders. (1987). (3rd ed. Revised). Washington, D.C.: American Psychiatric Association.
- Dohrenwend, B. P., & Dohrenwend, B. S. (1974). Social and cultural influences on psychopathology. Annual Review of Psychology, 25, 417-452.
- Eiser, J. R. (1986). Social psychology: Attitudes, cognition and social behaviour. Cambridge: Cambridge University Press.
- Ellis, L. J., & Bentler, P. M. (1973). Traditional sex-determined role standards and sex stereotypes. Journal of Personality and Social Psychology, 25, 28-34.
- Flett, G. L. , Pliner, P., & Blankstein, K. R. (1989). Depression and components of attributional complexity. Journal of Personality and Social Psychology, 56, 757-764.

- Forsterling, F. (1988). Attribution theory in clinical psychology. New York: Wiley.
- Giele, J. Z. (1982). Women's work and family roles. In J. Z. Giele (Ed.), Women in the Middle Years. New York: Wiley.
- Gotlib, I. H., & Whiffen, V. E. (1989). Depression and marital functioning: an examination of specificity and gender differences. Journal of Abnormal Psychology, 98, 23-30.
- Gove, W. R. (1972). The relationship between sex roles, marital status and mental health. Social forces, 51, 34-44.
- Greene, J. G. (1984). The Social and Psychological Origins of the Climacteric Syndrome. Hants, England: Gower Publishing Co.
- Griffin, R. W., & Bateman, T. S. (1986). Job satisfaction and organisational commitment. In C.L. Cooper & E. Robertson (Eds.). International Review of Industrial and Organisational Psychology. John Wiley & Sons Ltd.
- Gump, J. P. (1972). Sex-role attitudes and psychological well-being. Journal of Social Issues, 28, 79-91.
- Hafner, R. J. (1989). Health differences between married men and women: the contribution of sex-role stereotyping. Australian and New Zealand Journal of Family Therapy, 10, 13-19.
- Haines, H. (1987). Mental health for women. Auckland: Reed Methuen.
- Herzberg, F. Mausner, B., Peterson, R. A., & Capwell, D. F. (1957). Job attitudes: Review of research and opinion. Pittsburgh: Psychological Service of Pittsburgh.
- Holmes, T. H., & Rahe, R. H (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.
- Jenkins, R., & Clare, A. W. (1985). Women and mental illness. British Medical Journal, 291, 1521-1522.

- Johnston, R. (1983). A Revision of Socio-economic Indices for New Zealand. Wellington, New Zealand: New Zealand Council for Educational Research.
- Jones, W. H. (1981). Loneliness and social contact. The Journal of Social Psychology, 113, 295-296.
- Joshi, P., Garon, L., & Lechasseur, S. (1984). Self-esteem and loneliness among unemployed women. Psychological Reports, 54, 903-906.
- Junge, M., & Maya, V. (1985). Women in their forties: a group portrait and implications for psychotherapy. Women & Therapy, 4, 3-19.
- Kaplan, A. G., & Sedney, M. A. (1980). Psychology and Sex Roles. Boston: Little Brown and Company.
- Keith, P. M., & Schafer, R. B. (1982). Employment status, household involvement and psychological well-being of men and women. International Journal of sociology of the family, 12, 101-110.
- Kellerman, J., & Katz, E. R. (1978). Attitudes toward the division of childrearing responsibility. Sex Roles, 4, 505-512.
- Krausz, S. L. (1986). Sex roles within marriage. Social Work, 17, 456-404.
- Landrine, H. (1988). Depression and stereotypes of women: preliminary empirical analyses of the Gender-Role Hypothesis. Sex Roles, 19, 527-541.
- Landy, F. J., & Trumbo, D. A. (1980). Psychology of work behavior (rev. ed.). Homewood, Illinois: Dorsey Press.
- Lewinsohn, P. M. (1974). A behavioral approach to depression. In R. J. Friedman & M. Katz (Eds.), The Psychology of Depression. New York: John Wiley and Sons.
- Levinson, D. J., Darrow, C. N., Klein, E. B., Levinson, M. H., & McKee, B. (1978). The Seasons of a man's life. New York: Knopf.

- Lipman-Blumen, J. (1984). Gender Roles and Power. Englewood Cliffs, New Jersey: Prentice-Hall.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organisational psychology. Chicago: Rand McNally College Publishing.
- Locke, E. A. & Henne, D. (1986). Work motivational theories. In C. L. Cooper & I. Robertson (Eds.), International review of Industrial and Organisational psychology. John Wiley & Sons Ltd.
- Lowenthal, M. F., Thurnher, M., & Chiriboga, D. (1975). Four stages of life. San Francisco: Jossey-Bass.
- McLennan, R., Inkson, K., Dakin, S., Dewe, P., & Elkin, G. (1987). People and Enterprises: Human behaviour in New Zealand organisations. Sydney: Holt, Rinehart & Winston.
- McLennan, J. & Omodei, M. M. (1988). Psychological adjustment, close personal relationships and personality. British Journal of Medical Psychology, 61, 285-290.
- Maxwell, G. M. (1985). Behaviour or Lovers: Measuring the closeness of relationships. Journal of Social and Personal Relationships, 2, 215-237.
- Maxwell, G. M., & Coebergh, B. (1986). Patterns of loneliness in a New Zealand population. Community Mental Health in New Zealand, 2, 48-61.
- Mirowsky, J., & Ross, C. E. (1986). Social patterns of distress. Annual Review of Sociology, 12, 23-45.
- Monroe, S. M. (1982). Life events and disorder: Event-symptom associations and the course of disorder. Journal of Abnormal Psychology, 91, 14-24.
- Muchinsky, P. M. (1983) Psychology Applied to Work. Howewood, Illinois: The Dorsey Press.

- Nathanson, L. A., & Lorenz, G. (1982), Women and health:
The social dimensions of biomedical data. In J. Z. Giele (Ed.),
Women in the middle years. New York: Wiley.
- Neugarten, B. (1973). Her body, the battleground. In C. Tavris (Ed.), The Female Experience. De Mar, California: Ziff-Davis Publishing Co.
- Parker, G. (1979). Sex differences in non-clinical depression. Australian and New Zealand Journal of Psychiatry, 13, 127-132..
- Paykel, E. S. et al., (1969). Life events and depression. Archives of General Psychiatry, 21, 753.
- Powell, B. (1977). The empty nest, employment, and psychiatric symptoms in college-educated women. Psychology of Women Quarterly, 2, 35-43.
- Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. Science, 194, 1013-1020.
- Radloff, L., & Rae, D. (1979). Susceptibility and precipitating factors in depression: Sex differences and similarities. Journal of Abnormal Psychology, 88, 174-181.
- Regier, D. A., Boyd, J. H., Burke, J. D., Rae, D. S., Myers, J. K., Kramer, M., Robins, L. N., George, L. K., Karno, M., & Locke, B. Z. (1988). One-month prevalence of mental disorders in the United States. Archives of General Psychiatry, 45, 977-986.
- Rehm, L. P. (1987). The measurement of behavioral aspects of depression. In A. J. Masella, R. M. A. Hirschfeld, & M. A. Katz (Ed.), The Measurement of Depression. New York: The Guildford Press.
- Reis, H. T. (1984). Social interaction and well-being. In S. Duck (Ed.), Personal Relationships.(5). London: University of Lancaster.
- Romans-Clarkson, S. E. , Walton, V. A., Herbison, G. P. & Mullen , P. E. (In press). Marriage, Motherhood and Psychiatric Morbidity in New Zealand.

- Rosenfield, S. (1986). Sex differences in depression: Do women always have higher rate? Journal of Health and Social Behavior, 21, 33-42.
- Rothblum, E. D. (1983). Sex-role stereotypes and depression in women. In V. Franks and E. D. Rothblum (Eds.), The stereotyping of women: Its effects on mental health. New York: Springer.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, 1-28.
- Rubin, L. B. (1979). Women of a certain age. New York: Harper & Row.
- Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 46, 932-946.
- Sarason, I. G., Johnson, J. H. & Seigel, J. M. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 46, 932-946.
- Sauser, W. I. Jr, & York, C. M. (1978). Sex differences in job satisfaction: a re-examination. Personnel Psychology, 31, 537-547.
- Schradle, S. B., & Dougher, M. J. (1985). Social Support as a mediator of stress: theoretical and empirical issues. Clinical psychology review, 5, 641-661.
- Seligman, M. E. P. (1972). Learned Helplessness. Annual Review of Medicine, 23, 407-412.
- Shamir, B. (1985). Sex differences in psychological adjustment to unemployment: a question of commitment, alternative or finance. Social Problems, 33, 67-77.
- Sheehy, G. (1976). Passages: Predictable Crises of Adult Life. Toronto: Bantam Books.
- Spence, J. T., & Helmreich, R. L. (1978). Masculinity and Femininity. Austin, Texas: University of Texas Press.

- Spreitzer, E., Snyder, E. E., & Larson, D. L. (1979). Multiple roles and psychological wellbeing. Sociological Focus, 12, 141-148.
- Stokes, J. P., & Peyton, J. S. (1986). Attitudinal differences between full-time homemakers and women who work outside the home. Sex Roles, 15, 299-310.
- Stone Feinstein, B. D. S. (1987). Culture shock versus loneliness: The effects of Selected Variables on Psychological Adjustment of Sojourners. Unpublished doctoral dissertation, National University of Singapore.
- Stoppard, J. M., & Paisley, K. J. (1987). Masculinity, femininity, life stress, and depression. Sex Roles, 16, 489-495.
- Strickland, B.R. (1989). Internal-External control expectancies. American Psychologist, 44, 1-12.
- Surtees, P. G., Dean, C., Ingham, J. G., Kreitman, N. B., Miller, P. Mc. C., & Sashidharan, S. P. (1983). Psychiatric disorder in women from an Edinburgh community: Associations with demographic factors. British Journal of Psychiatry, 142, 238-246.
- Tennant, C., Bebbington, P., & Hurry, J. (1982). Female vulnerability to neurosis: The influence of social roles. Australian and New Zealand Journal of Psychiatry, 16, 135-140.
- Vinokur, A., & Selzer, M. L. (1975). Desirable versus undesirable life events: Their relationship to stress and mental distress. Journal of Personality and Social Psychology, 32, 329-337.
- Ward, C. (1987). Mid-life crisis in women - a cross-cultural phenomenon? In Kagitcibasi, C., (Ed.), Growth and Progress in Cross Cultural Psychology. Lisse: Swets and Zeitlinger.
- Weaver, C. N. (1978). Job satisfaction as a component of happiness among males and females. Personnel Psychology, 31, 831-840.

- Weider, A., Wolff, H. G., Brodman, K., Mittelmann, B., & Wechsler, D. (1949) Cornell Index manual. New York: The Psychological Corporation.
- Weiss, R. S. (1982). Attachment in adult life. In C. M. Parkes, & J. Stevenson-Hinde (Eds.), The place of attachment in human behaviour. New York: Basic Books.
- Weissman, M. M., & Klerman, G.L. (1979). Sex differences in the epidemiology of depression. In E. Gomberg and V. Franks (Eds.), Gender and disordered behaviour. New York: Bruner/Mazel.
- West, D. A., Kellner, R., & Moore-West, M. (1986). The effects of loneliness: A review of the literature. Comprehensive Psychiatry, 27, 351-361.
- Wheaton, B. (1980). The sociogenesis of psychological disorder: An attributional theory. Journal of Health and Social Behaviour, 21, 100-124.
- Woods, N.. F. (1982). Menopausal distress: A model for epidemiologic investigation. In A. M. Voda, M. C. Dinnerstein & S. R. O'Donnell (Eds.). Changing Perspectives on Menopause. Austin, Texas: University of Texas Press.

Appendix 1: Dependent measure

This section asks a variety of questions about your experiences. There are no right or wrong answers. Could you please respond to each statement with the choice that best describes you. Please respond to ALL statements.

- 1=never
- 2=a little of the time
- 3=some of the time
- 4=a good part of the time
- 5=most of the time

- (B) 1.I have a bad time in a variety of situations. ()1.
- (A) 2.I feel miserable and blue. ()1.
- (C) 3.Life looks hopeless. ()3.
- (A) 4.My emotions are dead. ()4.
- (A) 5.I am quiet and sad while at a party. ()5.
- (C) 6.I wish I was dead and away from it all. ()6.
- (S) 7.I have difficulty in falling asleep or staying asleep. ()7
- (C) 8.Little things get on my nerves and wear me out ()8.
- (C) 9.Worrying gets me down. ()9.
- (C) 10.I have disturbing or frightening thoughts that come back in my mind. ()10.
- (S) 11.I get spells of exhaustion or fatigue. ()11.
- (C) 12.I wear myself out with worrying about my health ()12.
- (S) 13.I get up tired in the morning. ()13.
- (S) 14.I am in poor health and unhappy. ()14.
- (S) 15.I am too tired and exhausted even to eat. ()15.

- (A) = Affective items
- (B) = Behavioral items
- (C)= Cognitive items
- (S) = Somatic items

Appendix 2: Attitudes Towards Women Scale

This first section deals with the attitudes toward the roles of women in society which different people have. There are no right or wrong answers.

Please give your opinion to each statement by indicating your response on a 1-5 point scale as follows:

- 1=disagree strongly
- 2=disagree mildly
- 3=neutral, neither agree nor disagree
- 4=agree mildly
- 5=agree strongly

Mark your answer (1,2,3,4,or 5) in the brackets on the right of the page after each statement. Please respond to ALL statements.

- (-)1.It is more repulsive when a woman swears or uses obscene language than when a man does. ()1.
- (-)2.Women should worry less about their rights and more about becoming good wives and mothers. ()2.
- (-)3. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man. ()3.
- * 4. Women should be given equal opportunity with men for apprenticeship in the trades. ()4.
- (-)5. Sons in a family should be given more encouragement to go to university than daughters. ()5.
- (-)6. Women with children should not work outside the home if they do not need the money. ()6.
- * 7. The relative amounts of time devoted to household duties on one hand and career on the other should be determined by personal choice rather than by sex. ()7.
- (-)8. Women should be concerned with their duties of child-rearing and tending the house rather than with desires for professional and business careers. ()8.
- * 9. It is perfectly obvious that women are intellectually equal with men. ()9.
- (-)10.A wife should make every effort to minimize irritation

- and inconvenience to the male head of the family. ()10
- (-)11.It is childish for a woman to assert herself by keeping her maiden name after marriage. ()11
- (-)12.Women have as much of an obligation to be faithful to their husbands as their husbands have to be faithful to their wives. ()12
- (+)13.Divorced men should help support their children but should not be made to pay maintenance if their wives are capable of working ()13
- * 14.Special attentions like standing up for a woman who comes into a room are outdated. ()14
- (-)15 A woman being drunk is worse than a man being drunk. ()15
- (-)16.The initiative in dating should come from the man. ()16
- (-)17.It is ridiculous for a woman to be a construction worker and for a man to be a receptionist. ()17
- * 18.A modern teenage girl should have the same freedom from regulation and control that is given to the modern teenage boy. ()18
- (-)19.There are some professions and types of businesses that are more suitable for men than women. ()19
- (-)20.Most women need and want the kind of protection and support that men have traditionally given them. ()20

**Items with Item Total correlations of less than .2 were deleted*

Note: The (+) and (-) signs preceding each item indicate the direction of scoring

Appendix 3: Social Readjustment Rating Questionnaire

Could you please indicate which of the following events have occurred to you in the past 6 months. Place a tick in the brackets provided:

- | | |
|---------------------------------------|--------|
| 1.Death of spouse | ()1. |
| 2.Marital separation | ()2. |
| 3.Jail term | ()3. |
| 4.Death of close family member | ()4. |
| 5.Personal injury or illness | ()5. |
| 6.Marriage | ()6. |
| 7.Fired at work | ()7. |
| 8.Marital reconciliation | ()8. |
| 9.Retirement | ()9. |
| 10.Change in health of family member | ()10. |
| 11.Pregnancy | ()11. |
| 12.Sex difficulties | ()12. |
| 13.Gaining a new family member | ()13. |
| 14.Business readjustment | ()14. |
| 15.Change in financial state | ()15. |
| 16.Death of close friend | ()16. |
| 17.Change to different line of work | ()17. |
| 18.Change in number of arguments | ()18. |
| 19.Mortgage over \$25,000 | ()19. |
| 20.Foreclosure of mortgage or loan | ()20. |
| 21.Change in responsibilities at work | ()21. |
| 22.Son or daughter leaving home | ()22. |
| 23.Trouble with in-laws | ()23. |
| 24.Outstanding personal achievement | ()24. |
| 25.Spouse begins or stops work | ()25. |
| 26.Begin or end of education | ()26. |
| 27.Change in living conditions | ()27. |
| 28.Revision of personal habits | ()28. |
| 29.Trouble with boss | ()29. |
| 30.Change in work hours or conditions | ()30. |
| 31.Change in residence | ()31. |
| 32.Change in recreation | ()32. |
| 33.Change in religious activities | ()33. |
| 34.Change in social activities | ()34. |
| 35.Mortgage less than \$25,000 | ()35. |
| 36.Change in sleeping habits | ()36. |
| 37.Change in family get togethers | ()37. |
| 38.Change in eating habits | ()38. |
| 39.Holiday | ()39. |
| 40.Minor violations of the law | ()40. |

Appendix 4: Internal/External Locus of Control

Please express your reaction to each statement by indicating your response on a 1-5 scale as follows:

- 1=disagree strongly
- 2=disagree mildly
- 3=neutral, neither agree nor disagree
- 4=agree mildly
- 5=agree strongly

Read each statement carefully, but give your immediate response.

- * 1.Sometimes I feel that I don't have enough control over the direction my life is taking. ()1.
- * 2.Many times success tends to be so unrelated to work that making an effort is really useless. ()2.
- (-)3.Most people don't realize the extent to which their lives are controlled by accidental happenings. ()3.
- (-)4.Who gets to be boss often depends on who was lucky enough to be in the right place first. ()4.
- (-)5.Unfortunately, an individual's worth often passes unrecognized no matter how hard she tries. ()5.
- (-)6. I have often found that what is going to happen will happen. ()6.
- (+)7.People's misfortunes result from the mistakes they make. ()7.
- (+)8.Capable people who fail to become leaders have not taken advantage of their opportunities. ()8.
- (+)9.In the long run people get the respect they deserve in this world. ()9.
- (+)10. What happens to me is my own doing. ()10.
- (+)11.Most misfortunes are a result of lack of ability, ignorance, laziness, or all three. ()11.
- (-)12.In the long run the bad things that happen to us are balanced by the good ones. ()12.

- * 13. In my case, getting what I want has little or nothing to do with luck. ()13.
- * 14. There really is no such thing as "luck". ()14.
- * 15. Becoming a success is a matter of hard work, luck has little or nothing to do with it. ()15.
- * 16. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action ()16..
- * 17. The average citizen can have an influence in government ()17.
- * 18. It is difficult for people to have much control over the things politicians do in office. ()18.
- * 19. When I make plans I am almost certain that I can make them work. ()19.
- * 20. Many times we might as well decide what to do by flipping a coin. ()20.

** Items with Item Total Correlations of less than .2 were deleted*

Note: The (+) and (-) signs preceding each item indicate the direction of scoring

Appendix 5: Menopausal Status

The next question deals with menopause, or 'the change of life'.

Please indicate what is presently happening with your menstruation (your periods) by placing a tick next to ONE of the three statements:

- 1. I have had a period sometime within the past three months ()1
- 2. The last time I had a period was between 3 months and a year ago ()2
- 3. My last period was at least a year ago. ()3

Appendix 6: Work

This section deals with the work you do. Please answer all these questions regardless of the type of work you do (for example, if you are a homemaker DO answer all the questions).

1.Please indicate which category of work you do: (tick one)

- PAID WORK ()
- UNPAID WORK (you receive no wages or salary) ()

2.Please write down your actual occupation:

.....

3.Could you also give a brief description of what your work mainly involves:.....

.....

4.This next question describes how you FEEL ABOUT YOUR WORK.

Below is a list of words . Please indicate how well each word describes how you feel about your work.

Place a 1,2,3,4, or 5 in the brackets provided beside each word (for example,if you think your work is "somewhat" fascinating, place a 2 beside the word 'fascinating' then go onto the next word and assign it a number)

- 1=not at all
- 2=somewhat
- 3=a moderate amount
- 4=a considerable amount
- 5=a great deal

(+)Fascinating()	* Routine ()
(+)Satisfying()	* Boring ()
(+)Good ()	(+)Creative ()
(+)Respected()	* Hot ()
(+)Pleasant ()	(+)Useful ()
* Tiresome ()	(+)Healthful ()
(+)Challenging()	(-)On your feet()
Frustrating ()	* Simple ()
Endless ()	(+)Gives sense of accomplishment()

** Items with Item Total Correlations of less than.2 were deleted.*

Note: The (+) and (-) signs preceding each item indicate the direction of scoring

Appendix 7: Quality of Relationships

This section deals with the different relationships in your life - with your husband, your children and your closest friends.

Please express your reaction to each statement below which describes your relationship with your husband (the first column), your children (the second column), and your friends (third column). Place a 1,2,3,4, or 5 in all three brackets provided for each question.

- 1=not at all
- 2=somewhat
- 3=a moderate amount
- 4=a considerable amount
- 5=a great deal

	with your husband	with your children	with friends
1.How close would you say your relationship is?	()1	()1	()1.
2. Do you miss your husband/children/friends when you cannot be together for a prolonged period of time?	()2	()2	()2.
3. Do you disclose to your husband/children/ friends things that are important and personal to you?	()3	()3	()3.
4. Do you show your true feelings and behave completely naturally when you are with your husband/children/friends?	()4	()4	()4.
5. Do you share important attitudes and values?	()5	()5	()5.
6. Do you have a lot of interests in common?	()6	()6	()6.
7. Do you feel as though you know a great deal about what your husband/children/friends think, do and feel?	()7	()7	()7.

8. Do you help your husband/children/friends do things?

()8. ()8 ()8.
9. Do your husband/children/friends help you do things when you need help?

()9. ()9. ()9.
10. How much would it matter to you if you seemed to be not getting on well with your husband/children/friends?

()10 ()10 ()10
11. Do you seek your husband's/ children's/friends' company when you want to relax?

()11 ()11. ()11.

How many children do you have: (please circle the number)

1, 2, 3, 4, 5, 6, (more than 6)

How many children do you have still living at home

None, 1, 2, 3, 4, 5, 6, (more than 6)

For the questions below, indicate your answers by circling one of the numbers 0-6 along the scales provided:

12.How satisfied are you with your relationship with your husband?

not at all
satisfied

0

1

2

3

4

5

6

Very much
satisfied

13.How satisfied are you with your relationship with your children?

not at all
satisfied

0

1

2

3

4

5

6

Very much
satisfied

Appendix 8: Instructions

I am conducting a survey of women, aged between 40 and 60, who are married with children and live in Christchurch. The following questionnaire examines the feelings and experiences of women in this age group. This information is being gathered for a Master's Thesis at the University of Canterbury.

This questionnaire is anonymous and confidential. At no stage will you be required to give your name or address.

Please only fill out this questionnaire if you are aged between 40 and 60, are MARRIED, and have had CHILDREN.

If you have any enquires or you wish to discuss some aspect of this questionnaire, I can be contacted at home (ph. 894 962) or at University (ph 667 001, extension 7194). When you have finished the questionnaire, please post it back to me as soon as possible in the stamped envelope provided.

Many thanks for your help.

Lorinda Creighton

Appendix 9:
Zero Order Correlations between all Quality of Relationship
Variables

<u>Variables</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
1 Satisfaction with							
husband	.25*	.16**	.84**	.33**	..04	.77**	.11
2.Satisfaction with							
children	—	.48**	.13*	.53**	.09	.06	.25**
3.Satisfaction with							
friends	—	—	.09	.32**	.51**	-.02	.50**
4.Closeness with							
husband	—	—	—	.47**	.16*	.84**	.15*
5.Closeness with							
children	—	—	—	—	.41**	.21**	.20**
6.Closeness with							
friends	—	—	—	—	—	.02	.38**
7.Future of relationship							
with husband	—	—	—	—	—	—	.09
8.Future of relationship							
with friends	—	—	—	—	—	—	—

*p<.05

**p<.005

Appendix 10

Variance on all Scales

<u>Variable</u>	<u>mean</u>	<u>Std Dev</u>	<u>Range</u>
Depression	24.79	5.62	37
Internal/External Locus of Control	28.56	4.53	26
Attitudes Towards Women	48.24	9.73	44
Life Stress	111.29	87.23	444
Satisfaction with Work	34.59	7.88	38
Closeness with Husband	45.17	9.20	44
Closeness with Children	43.23	5.65	32
Closeness with Friends	38.69	6.39	34

Appendix 11:

Variance of items on the dependent measure

<u>Item</u>	<u>Mean</u>	<u>Standard Deviation</u>	
1.	2.08	.58	(B)
2.	1.92	.62	(A)
3.	1.39	.69	(C)
4.	1.42	.77	(A)
5.	1.65	.80	(A)
6.	1.16	.49	(C)
7.	2.01	.96	(S)
8.	2.04	.77	(C)
9.	2.10	.79	(C)
10.	1.36	.59	(C)
11.	2.03	.78	(S)
12.	1.24	.49	(C)
13.	2.01	.79	(S)
14	1.28	.56	(S)
15	1.10	.31	(S)

- (A)=Affective items
- (B)=Behavioral items
- (C)=Cognitive items
- (S)=Somatic items